

REMARKS

Claims 1-14 and 39-40 are pending in the Application.

Claims 1-14 and 39-40 are rejected under 35 U.S.C. §102 (e).

Applicants thank the Examiner for discussing the office action and in particular the rejection to claim 1 with Applicants' attorney on December 10, 2003.

Applicants note that claim 40 was not amended below to overcome prior art but to be correct a typographical error. The amendment made to claim 40 was not narrowing in scope and therefore no prosecution history estoppel arises from the amendment to claim 40. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 62 U.S.P.Q.2d 1705, 1711-1712 (2002); 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2000). Further, the amendment made to claim 40 was not made for a substantial reason related to patentability and therefore no prosecution history estoppel arises from such an amendment. See *Festo Corp.* at 1707 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 41 U.S.P.Q.2d 1865, 1873 (1997).

Applicants respectfully traverse the rejections for at least the reasons stated below and respectfully request the Examiner to reconsider and withdraw these rejections.

I. REJECTIONS UNDER 35 U.S.C. §102(e):

The Examiner has rejected claims 1-14 and 39-40 under 35 U.S.C. §102(e) as being anticipated by Henry et al. (U.S. Patent No. 6,550,004) (hereinafter "Henry"). Applicants respectfully traverse the rejections for at least the reasons stated below and respectfully request the Examiner to reconsider and withdraw these rejections.

For a claim to be anticipated under 35 U.S.C. §102, each and every claim limitation must be found within the cited prior art reference and arranged as required by the claim. M.P.E.P. §2131.

Applicants respectfully assert that Henry does not disclose "providing a software branch prediction of the conditional branch instruction as a function of the determination if the specified condition register field is used to store the branch condition of the conditional branch condition" as recited in claim 1 and similarly in claim 8. The Examiner cites lines 13-14 of the abstract; column 4, lines 49-52; column 5, lines 8-12 and 35-38; column 9, lines 31-44 and Figure 2 of Henry as disclosing the above-cited claim limitation. Paper No. 7, pages 2-3. Applicants respectfully traverse and assert that Henry instead discloses a static predictor, static predictor 222, that receives three inputs and predicts the outcome of conditional branch instructions based upon the three inputs. One of the three inputs comprises a conditional branch instruction test type 225. The test type specifies a condition upon which the branch instruction will be taken or not taken. This language is not the same as providing a branch prediction as a function of the determination if a specified condition register field is used to store the branch condition of the conditional branch condition. There is no language in Henry that discloses providing a prediction if a condition register field is used to store a branch condition. Further, there is no language in Henry that discloses a software branch prediction. Thus, Henry does not disclose all of the limitations of claims 1 and 8, and thus Henry does not anticipate claims 1 and 8. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "determining if the conditional branch instruction is positioned at a specified address in a sequence of instructions being executed" as recited in claim 39. The Examiner cites column 7, lines 5-6 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 5. Applicants respectfully traverse and assert that Henry instead discloses a branch predictor, branch predictor 103, that receives the address of branch instructions from the instruction pointer 142 via signal 188. This language has no relevancy to determining if an instruction is positioned at an address in a sequence of instructions being executed. Applicants respectfully assert that the Examiner must clearly explain the relevancy of column 7, lines 5-6 of Henry with respect to the above-cited claim limitation, pursuant to 37 C.F.R. §1.104(c)(2). Thus, Henry does not disclose all of the limitations of claim 39, and thus Henry does not anticipate claim 39. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "predicting whether the conditional branch instruction will be taken or not taken as a function of the position of the specified address" as recited in claim 39. The Examiner cites column 7, lines 5-8 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 5. Applicants respectfully traverse and assert that Henry instead discloses a branch predictor, branch predictor 103, that receives the address of branch instructions from the instruction pointer 142 via signal 188 and makes a prediction of the outcome of the branch instruction based upon the branch instruction address. This language is not the same as predicting whether a conditional branch instruction will be taken or not taken as a function of a position of an address. Henry simply discloses predicting the outcome of the branch instruction based upon the branch instruction address but not predicting the outcome of the branch instruction based upon a position of the address. Thus, Henry does not disclose all of the limitations of claim 39, and thus Henry does not anticipate claim 39. M.P.E.P. §2131.

Claims 2-7, 9-13 and 40 each recite combinations of features including the above combinations, and thus are not anticipated for at least the above stated reasons. Claims 2-7, 9-13 and 40 recite additional features, which, in combination with the features of the claims upon which they depend, are not anticipated by Henry.

For example, Henry does not disclose "wherein the software branch prediction predicts that the conditional branch instruction will be taken if the specified condition register field is used to store the branch conditional of the conditional branch instruction" as recited in claim 2 and similarly in claim 9. The Examiner cites lines 13-14 of the abstract; column 4, lines 49-52; column 5, lines 8-12 and 35-38; column 9, lines 31-44 and Figure 2 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 3. Applicants respectfully traverse and assert that Henry instead discloses a static predictor, static predictor 222, that receives three inputs and predicts the outcome of conditional branch instructions based upon the three inputs. One of the three inputs comprises a conditional branch instruction test type 225. The test type specifies a condition

upon which the branch instruction will be taken or not taken. This language is not the same as predicting a conditional branch instruction will be taken if a specified condition register field is used to store a branch condition. There is no language in Henry in basing a prediction on whether a particular condition register field is used to store a branch condition. Further, as stated above, there is no language in Henry that discloses a software branch prediction. Thus, Henry does not disclose all of the limitations of claims 2 and 9, and thus Henry does not anticipate claims 2 and 9. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "wherein the software branch prediction predicts that the conditional branch instruction will be not taken if the specified condition register field is not used to store the branch conditional of the conditional branch instruction" as recited in claim 3 and similarly in claim 10. The Examiner cites lines 13-14 of the abstract; column 4, lines 49-52; column 5, lines 8-12 and 35-38; column 9, lines 31-44 and Figure 2 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 3. Applicants respectfully traverse and assert that Henry instead discloses a static predictor, static predictor 222, that receives three inputs and predicts the outcome of conditional branch instructions based upon the three inputs. One of the three inputs comprises a conditional branch instruction test type 225. The test type specifies a condition upon which the branch instruction will be taken or not taken. This language is not the same as predicting a conditional branch instruction will not be taken if a specified condition register field is not used to store a branch condition. There is no language in Henry in basing a prediction on whether a particular condition register field is not used to store a branch condition. Further, as stated above, there is no language in Henry that discloses a software branch prediction. Thus, Henry does not disclose all of the limitations of claims 3 and 10, and thus Henry does not anticipate claims 3 and 10. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "wherein the software branch prediction predicts that the conditional branch instruction will be not taken if the specified condition register field is used to store the branch conditional of the conditional branch instruction" as recited in claim 4 and

similarly in claim 11. The Examiner cites lines 13-14 of the abstract; column 4, lines 49-52; column 5, lines 8-12 and 35-38; column 9, lines 31-44 and Figure 2 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 3. Applicants respectfully traverse and assert that Henry instead discloses a static predictor, static predictor 222, that receives three inputs and predicts the outcome of conditional branch instructions based upon the three inputs. One of the three inputs comprises a conditional branch instruction test type 225. The test type specifies a condition upon which the branch instruction will be taken or not taken. This language is not the same as predicting a conditional branch instruction will not be taken if a specified condition register field is used to store a branch condition. There is no language in Henry in basing a prediction on whether a particular condition register field is not used to store a branch condition. Further, as stated above, there is no language in Henry that discloses a software branch prediction. Thus, Henry does not disclose all of the limitations of claims 4 and 11, and thus Henry does not anticipate claims 4 and 11. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "wherein the software branch prediction predicts that the conditional branch instruction will be taken if the specified condition register field is not used to store the branch conditional of the conditional branch instruction" as recited in claim 5 and similarly in claim 12. The Examiner cites lines 13-14 of the abstract; column 4, lines 49-52; column 5, lines 8-12 and 35-38; column 9, lines 31-44 and Figure 2 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 3. Applicants respectfully traverse and assert that Henry instead discloses a static predictor, static predictor 222, that receives three inputs and predicts the outcome of conditional branch instructions based upon the three inputs. One of the three inputs comprises a conditional branch instruction test type 225. The test type specifies a condition upon which the branch instruction will be taken or not taken. This language is not the same as predicting a conditional branch instruction will be taken if a specified condition register field is not used to store a branch condition. There is no language in Henry in basing a prediction on whether a particular condition register field is not used to store a branch condition. Further, as stated above, there is no language in Henry that discloses a software branch

prediction. Thus, Henry does not disclose all of the limitations of claims 5 and 12, and thus Henry does not anticipate claims 5 and 12. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "wherein the specified condition register field is N, where N is an integer" as recited in claim 6 and similarly in claim 13. Further, Applicants further assert that Henry does not disclose "wherein the specified condition register field is a multiple of N" as recited in claim 7 and similarly in claim 14. The Examiner cites column 7, lines 36-38 and column 9, lines 31-44 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 4. Applicants respectfully traverse and assert that Henry instead discloses a register file, register file 105, that includes a status flags register that is used in determining whether branch conditions have been satisfied. While the status flags register is used in determining whether branch conditions have been satisfied, presumably based on the state of flags stored in such a register, Henry does not disclose that a prediction is a function of whether a specified field in the status flags register was used to store a branch condition. Further, Henry does not disclose that such a specified field is N or a multiple of N. Thus, Henry does not disclose all of the limitations of claims 6, 7, 13 and 14, and thus Henry does not anticipate claims 6, 7, 13 and 14. M.P.E.P. §2131.

Applicants further assert that Henry does not disclose "wherein the predicting program step will predict taken if the specified address is a multiple of specified number N" as recited in claim 40. The Examiner cites column 8, lines 14-16 and 31-41 and column 7, lines 5-8 of Henry as disclosing the above-cited claim limitation. Paper No. 7, page 5. Applicants respectfully traverse and assert that Henry instead discloses a branch predictor, branch predictor 103, that receives the address of branch instructions from the instruction pointer 142 via signal 188 and makes a prediction of the outcome of the branch instruction based upon the branch instruction address. Henry further discloses dynamic predictors, predictors 202, 204, that receive an address of conditional branch instructions from the instruction pointer register 142 via signal 188. Henry further discloses that dynamic predictor 202 comprises history table X 302 and that dynamic predictor

204 comprises history table Y 304. This language is not the same as predicting whether a conditional branch instruction will be taken or not taken as a function of a position of an address. Henry simply discloses predicting the outcome of the branch instruction based upon the branch instruction address but not predicting the outcome of the branch instruction based upon a position of the address. Further, Henry does not disclose predicting a conditional branch instruction will be taken if the address is a multiple of specified number N. Thus, Henry does not disclose all of the limitations of claim 40, and thus Henry does not anticipate claim 40. M.P.E.P. §2131.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within the cited prior art reference and thus claims 1-14 and 39-40 are not anticipated by Henry.

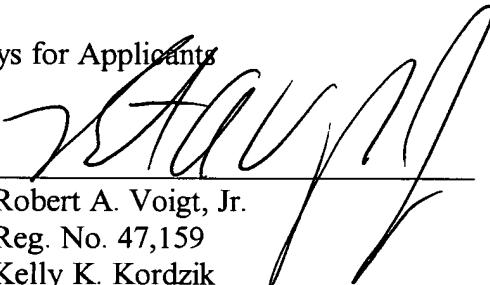
II. CONCLUSION:

As a result of the foregoing, it is asserted by Applicants that claims 1-14 and 39-40 in the Application are in condition for allowance, and Applicants respectfully request an allowance of such claims. Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining issues.

Respectfully submitted,

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